



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re US Patent Application of:	)	
Ronald D. Blum et al.	)	
Application No.: 10/644,112	)	Group Art Unit: 2873
Filing Date: August 20, 2003	)	Examiner: Unassigned
Title: METHOD OF MANUFACTURING AN ELECTRO-ACTIVE LENS	)	

## INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Attached hereto is a duly completed Form PTO-1449 listing references which may be considered either material or helpful to the examination of the above-identified patent application. Pages 1-7 of Form PTO-1449 list references which were submitted in the priority applications and consequently duplicate copies of these references are not attached hereto. Copies of the references found on pages 8-10 and not previously of record are enclosed for the Examiner's review. It is requested that all these references be considered by the Examiner and officially made of record.

Respectfully submitted

Бу

Hunton & Williams Riverfront Plaza, East Tower 951 East Byrd Street Richmond, VA 23219-4074 (804) 788-8516 telephone number (804) 343-4666 facsimile number

Date: February 11, 2004

Shawn K. Leppo

Registration No. 50,311

(Rev. 8-83)		U.S. Department Patent and Trace	ent of Commerce demark Office	At	ty. Docket No.: 6	3049.000088	Application	No.: 10/644,112
INFO		TION DISC TATEMEN		c				
	(Use se	veral sheets if nece	essary)					
					oplicant: Ronald	,		
				Fil	ling Date: Augus	t 20, 2003	Group: 287	/3
			U.S. PA	ATEN	T DOCUM	ENTS	I	
Examiner Initial*		Document Number	Date		Name	Class	Subclass	Filing Date (if appropriate)
	1	Re. 35,691	12/16/97	Their	rl et al.			
	2	D 298,250	10/25/88	Kilda	ત્રી	1		
	3	D 342,063	12/7/93	How	itt et al.	1		
	4	D 350,342	9/6/94	Sack		_		
	5	2,437,642	3/9/48	Henr	oteau			
	6	2,576,581	11/27/51	Edwa	ards			
	7	3,161,718	12/15/64	de Lı	ıca	1		
	8	3,245,315	4/12/66	Mark	s et al.			
	9.	3,614,215	10/19/71	Mack	kta ·			
	10	3,738,734	6/12/73	Tait o	et al.			
	11	4,174,156	11/13/79	Glori	eux			
	12	4,181,408	1/1/80	Send	ers			
	13	4,190,330	2/26/80	Berre	eman	<del>                                     </del>		
Examiner:	<u></u>		×	Da	nte Considered:			
	itation i	Initial if citation of the conform						

Sheet 2 of 10

(Rev. 8-83)		U.S. Departmer Patent and Trad		2	Atty. Docket No.: 630	049.000088	Application	No.: 10/644,112
INFO		TION DISC		£				
	31	IAIEWELT.	1					
	(Use se	veral sheets if nece	essary)					
					Applicant: Ronald D	. Blum et al.		
					Filing Date: August 2	20 , 2003	Group: 287	'3
			U.S. P	ΑT	ENT DOCUME	NTS		
Examiner Initial*		Document Number	Date	T	Name	Class	Subclass	Filing Date (if appropriate)
	14	4,264,154	4/28/81	F	Peterson	†		
	15	4,279,474	7/21/81	E	Belgorod	1		
	16	4,300,818	11/17/81	S	Schachar			
	17	4,373,218	2/15/83		Schachar			
	18	4,395,736	7/26/83	F	raleux			
	19	4,418,990	12/6/83	T	Gerber			
	20	4,457,585	7/3/84		DuCorday			
	21	4,466,706	8/21/84	I	amothe, II			
	22	4,529,268	7/16/85	F	Brown			
	23	4,564,267	1/14/86	┸	Nishimoto			
	24	4,572,616	2/25/86	$\perp$	Kowel et al.			
	25	4,577,928	3/25/86	$\perp$	Brown			
	26	4,601,545	7/22/86		Kern			
	27	4,609,824	9/2/86		Munier et al.			
	28	4,712,870	12/15/87		Robinson et al.			
	29	4,756,605	7/12/88	1	Okada et al.			
Examiner:					Date Considered:			
					ner or not citation is in sidered. Include copy			

}

/	OIP	E vos
E	FEB 1.3	2004 :
W.	& TRADE	F6 m PTO (Rev. 8-83)

U.S. Department of Commerce Patent and Trademark Office

Atty. Docket No.: 63049.000088 Application No.: 10/644,112

## INFORMATION DISCLOSURE **STATEMENT**

(Use several sheets if necessary)

Applicant: Ronald D. Blum et al.

Filing Date: August 20, 2003

Group: 2873

## **U.S. PATENT DOCUMENTS**

Examiner Initial*		Document Number	Date	Name	Class	Subclass	Filing Date (if appropriate)
	30	4,772,094	9/20/88	Sheiman			
	31	4,795,248	1/3/89	Okada et al.			
	32	4,818,095	4/4/89	Takeuchi			
	33	4,836,652	6/6/89	Oishi et al.			
	34	4,880,300	11/14/89	Payner et al.			
	35	4,904,063	2/27/90	Okada et al.			
	36	4,907,860	3/13/90	Noble			
	37	4,919,520	4/24/90	Okada et al.			
	38	4,927,241	5/22/90	Kuijk			
	39	4,929,865	5/29/90	Blum			
	40	4,930,884	6/5/90	Tichenor et al.			
	41	4,945,242	7/31/90	Berger et al.			
	42	4,952,788	8/28/90	Berger et al.	-		
	43	4,958,907	9/25/90	Davis			

Examiner:

Date Considered:

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Ectri PTO Rev. 8-83)	-1449	U.S. Departme Patent and Trac	nt of Commerce demark Office	Atty. Docket No.: 6	3049.000088	Application	Sheet <u>4</u> No.: 10/644,11
INFOR		TION DISC					
(	(Use se	veral sheets if neco	essary)	Applicant: Ronald	D. Blum et al.		
				Filing Date: Augus	st 20, 2003	Group: 287	73
			U.S. PA	ATENT DOCUM	ENTS	<u> </u>	
Examiner Initial*		Document Number	Date	Name	Class	Subclass	Filing Date (if appropria
	44	4,961,639	10/9/90	Lazarus			
	45	4,968,127	11/6/90	Russell et al.			
	46	4,981,342	1/1/91	Fiala			
	47	4,991,951	2/12/91	Mizuno et al.			
	48	5,015,086	5/14/91	Okaue et al.			
	49	5,030,882	7/9/91	Solero			
	50	5,066,301	11/19/91	Wiley			
	51	5,073,021	12/17/91	Marron			
	52	5,076,665	12/31/91	Petersen			
	53	5,091,801	2/25/92	Ebstein			
	54	5,108,169	4/28/92	Mandell			
	55	5,130,856	7/14/92	Tichenor et al.			
	56	5,142,411	8/25/92	Fiala		<u> </u>	
	57	5,171,266	12/15/92	Wiley et al.			
	58	5,182,585	1/26/93	Stoner		İ	

through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet <u>5</u> of <u>10</u>

(Rev. 8-83)	<b>)-1449</b>	U.S. Department Patent and Trace	nt of Commerce demark Office	Atty. Docket No.: 6	53049.000088	Application	No.: 10/644,112
INFO		TION DISC					
	(Use sev	veral sheets if nece	essary)			<u> </u>	
				Applicant: Ronald	D. Blum et al.		
				Filing Date: Augus	st 20, 2003	Group: 287	3
			U.S. P	ATENT DOCUM	ENTS	l	
Examiner Initial*		Document Number	Date	Name	Class	Subclass	Filing Date (if appropriate)
	59	5,184,156	2/2/93	Black et al.			
	60	5,200,859	4/6/93	Payner et al.			
	61	5,208,688	5/4/93	Fergason et al.			
	62	5,229,885	7/20/93	Quaglia			
	63	5,239,412	8/24/93	Naka et al.			
	64	5,306,926	4/26/94	Yonemoto			
	65	5,324,930	6/28/94	Jech, Jr.			-
	66	5,352,886	10/4/94	Kane			
	67	5,359,444	10/25/94	Piosenka et al.			
	68	5,375,006	12/20/94	Haas			
	69	5,382,986	1/17/95	Black et al.			
	70	5,440,357	8/8/95	Quaglia			
	71	5,443,506	8/22/95	Gurabet			
	72	5,451,766	9/19/95	Van Berkel			
	73	5,488,439	1/30/96	Weltmann			
Examiner:				Date Considered:	•		
				nether or not citation is considered. Include cop			

P FEB 1 3 2004

Sheet <u>6</u> of <u>10</u>

(Rev. 8-83)		U.S. Department Patent and Trade				Atty. Docket No.: 63	3049.000	088 A	pplicati	on No.	: 10/644,112	
INFO		ATION DISC TATEMENT		SURE								
	(Use s	everal sheets if neces	sагу	)								
						Applicant: Ronald I	O. Blum e	et al.				
					ľ	Filing Date: August	20, 2003	G	roup: 2	2873	,	
				U.S. PA	T	ENT DOCUME	ENTS					_
Examiner Initial*		Document Number		Date		Name	Class	Sub	class	[ (i	Filing Date if appropriate)	
	74	5,522,323	6/4	1/96	Ri	chard						
	75	5,608,567	3/4	1/97	Gı	rupp						
	76	5,615,588	4/1	1/97	G	ottschald						
	77	5,654,786	8/5	5/97	В	ylander						
	78	5,712,721	1/2	27/98	La	ırge						
	79	5,728,155	3/1	17/98	Aı	nello et al.						
	80	5,739,959	4/1	14/98	_	uaglia						
	81	5,777,719	7/7	7/98	W	illiams et al.						
	82	5,815,233	9/2	29/98	M	orokawa et al.						
	83	5,861,936	1/1	19/99	Sc	orenson						
	84	5,900,720	5/4	1/99	K	allman et al.						
	85	5,949,521	9/7	7/99		illiams et al.						
	86	5,980,037	11.	/9/99	Co	onway						
	87	6,325,508	12	/4/01		ecreton et al.						
					Gl	N PATENT DO	CUMI		,			
		Document Numb	er	Date		Country		Class	Sub	class	Translation Yes No	Ĺ
	1	WO 98/27863		7/2/98		WIPO					X	
	2	0 154 962 A2		9/18/85		EPO					Х	
Examiner:		<u> </u>		•		Date Considered:			· · · · · · · · · · · · · · · · · · ·		•	

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

rorm l (Rev. 8	PTO-1	449 U.S. Department	of Commerce	Atty D	ocket No.: 63049.0000	88 Application	No.: 10/644,112	et <u>7</u> of <u>10</u>
	-83)	Patent and Trade  MATION DISC  STATEMENT	mark Office  LOSURE	,				
	(Us	se several sheets if neces	sary)	Applica	ant: Ronald D. Blum et	al.		
				Filing I	Date: August 20, 2003	Group: 287	3	
	··· – ··		FORE	IGN P	ATENT DOCU	MENTS		
		Document Number	Da		Country	Class	Subclass	Translation Yes No
	3	0 233 104 A1 0 237 365 A1	8/19/8 9/16/8		EPO EPO			(Abstract) (Abstract)
-	5	1-237610	9/22/8	9	Japan			(Abstract)
	6	2169417A ;	7/09/8	6	UK			Х
	7 8	2170613A 55-076323	8/6/86 6/9/80	i	UK			(Abstract)
Examin Initial*		33-076323			Japan  MENTS (Including A	Author, Title, Date,	Pertinent Pages, Etc	
		Optics, Vol. 2  "Computer V	3, No. 2, Januar sion Syndrome	y 15, 198 - The Ey	Refraction in a Liquid 34, pp. 278-289 estrain Epidemic"; Ro	<u> </u>		
		3 "The Use of Y O.D., Journal		and Base n Optome	-In Prism for Reducing etric Association, Aprile issue)			art M. Lazarus,
		Conference, I	ourham, United	Kingdom			-	
		Eyes"; Larry	N. Thibos et al.,	Inpress,	Light Modulators for l Adaptive Optics Conf es to Alter the Refracti	erence, Durham,	United Kingdom,	1999
		Optometry an	d Vision Science	e, Vol. 74	I, No. 7, July 1997 tury", Indiana Journa			
	$\dashv$	9 "Profile: Ları	y N. Thihoe Ph	.D. and I	Donald Miller, Ph.D.",	Indiana Journal	of Optometry, Vo	ol, 2, No. 1, pp. 5-

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Sheet 8 of 10

Form PTO (Rev. 8-83) INFOI	RMA	U.S. Department Patent and Trace  TION DISCE  TATEMEN	CLOSURE	Atty. Docket No.: 6	3049,000088	Application	No.: 10/644,112
	(Use se	veral sheets if nece	essary)	Applicant: Ronald	D. Blum et al.		
				Filing Date: August	t 20, 2003	Group: 287	3
			U.S. PA	TENT DOCUM	ENTS		
Examiner Initial*		Document Number	Date	Name	Class	Subclass	Filing Date (if appropriate)
	1	4,787,733	11/29/88	Silva			
	2	4,919,520	04/24/90	Okada et al.			
	3	5,050,981	09/24/91	Roffman			
	4	5,114,628	05/19/92	Höfer et al.			.,,
	5	5,682,223	10/28/97	Menezes et al.			
	6	5,712,721	01/27/98	Large			
	7	5,815,239	09/29/98	Chapman et al.			
	8	5,953,098	09/14/99	Lieberman et al.			<u> </u>
	9	6,086,204	07/11/00	Magnante			
	10	6,095,651	08/01/00	Williams et al.			
	11	6,145,987	11/14/00	Baude et al.			
	12	6,305,802	10/23/01	Roffman et al.			
	13	6,554,425	04/29/03	Roffman et al.			
Examiner:		<u> </u>		Date Considered:			
				ether or not citation is in passidered. Include copy			



Form PT (Rev. 8-83	) <b>RM</b> A	U.S. Department of Patent and Traden  ATION DISCI TATEMENT	nark Office	Atty. Docket No.: 63049.000088 Application No.: 10/644,112						
	(Use s	everal sheets if necessa	ary)		D Di					
				Applicant: Ronald	D. Blum e	t ai.		i i		
				Filing Date: Augus	st 20, 2003	Gr	oup: 2873			
		•	U.S. PA	TENT DOCUM	ENTS			,		
Examiner Initial*		Document Number	Date	Name	Class	Subc		Filing Date if appropriate)		
	14	6,609,794	08/26/03	Levine						
	15	6,616,279	09/09/03	Dick et al.						
	16	6,616,279	09/09/03	Davis et al.						
	17	6,631,001	10/07/03	Kuiseko						
	1	+ +								
	<u>.</u>			GN PATENT DO	OCUMI	ENTS	· · · · ·	•		
		Document Number	Date	Country		Class	Subclass	Translation Yes No		
	1	10366043	12/09/98	JP				Х		
	2	PCT/US91/04976	07/15/91	PCT						
	3	PCT/US97/21688	11/21/97	PCT						
Examiner				Date Considered:						
	itation			ther or not citation is nsidered. Include cop						

m PTO- (Rev. 8-83)		U.S. Department of Cor Patent and Trademark ( FION DISCLO (Use several sheets	Office OSURE STATI	EMENT	Atty. D 63049.0	Oocket No.: 000088		She Application 10/644,112
		`	-				ld D. Blum	
					Filing I August	Date: 20, 2003		Group: 287
		F	OREIGN PAT	ENT DOC	UMEN	TS		
		Document Number	Date	Countr	у	Class	Subclas	s <u>Tran</u> Yes
	ļ	•						,
	ļ						<u> </u>	
	<u>.</u>						<u> </u>	
	-							
				<u></u>			1	
Examiner Initial*		ОТН	ER DOCUME	NTS (Includin	ng Author,	Title, Date,	Pertinent Pa	ages, Etc.)
	1 !	"Control Optimizati Express, Vol. 4, No			stal Lense	es"; A. F. ì	Naumov an	d G. D. Lov
	2 🗸	"Liquid Crystal Ada Vol. 23, No. 13, Jul	aptive Lenses with I	Modal Control'	'; A. F. N	aumov and	i M. Yu Lo	ktev, Optics
	3	"Liquid Lenses Eye Laser, November 20	Commercial Break	through" (Inter	rnet Articl	le under "C	Optics.org"	); from Opto
			_					
Examiner:	J.,				Date C	onsidered:		